## ISSUE SLIP STAPLE AREA (for additional cross references)

| POSITION                  | INITIALS | ID NO. | DATE     |  |  |
|---------------------------|----------|--------|----------|--|--|
| FEE DETERMINATION         | D. F.    | 2020   | V-(-,CO) |  |  |
| O.I.P.E. CLASSIFIER       |          | 10     | 1-51/100 |  |  |
| FORMALITY REVIEW          |          | 11.7   | 1:277    |  |  |
| RESPONSE FORMALITY REVIEW |          |        |          |  |  |

## **INDEX OF CLAIMS**

| ~ | Rejected                   | N | Non-elected  |
|---|----------------------------|---|--------------|
|   | Allowed                    | l | Interference |
| _ | (Through numeral) Canceled | Α | ^ppeai       |
| · | Restricted                 | 0 | Objected     |

| Clai     | _T       |                 |          | _            |          | Date     | e .      |     |                |                         |                         | Ch   | im       |          |          |            | -        | Date     | 3        |          |          |          |          | ſ    | Clair         | n           | _ |
|----------|----------|-----------------|----------|--------------|----------|----------|----------|-----|----------------|-------------------------|-------------------------|--|----------|----------|----------|------------|----------|----------|----------|----------|----------|----------|----------|------|---------------|-------------|---|
| $\vdash$ | _        | 17              | 21       | 7            | _        | 3        | 1        | 1   | т-             | T                       |                         |  |          | Т        | T        | Т          | T        | Ť        | 1        | П        | $\neg$   | T        |          | ۲    | Т             | $\top$      | Γ |
| 11       | Oniginal | <b>0</b> '7 '   | - 1      | - 4          | 7        | ۱ ۲      |          |     | 1              | 1                       |                         | _  | Original |          | -        |            | - 1      |          | - [      |          | 1        |          |          |      | _ !           | Bulging     | l |
| Final    | 힏        | , e             | 1        | 02           | 04       | 0        | اد       | ٥   | ┢              |                         | '                       | Final  | 5        |          | -        | -          | - 1      |          |          |          | -        | -        | - }      | - [. | ina           | <b>E</b>    | l |
| ᄪ        | 욌        | 1               | _        | -            | -        | 1        | 7        | 1   | 1-             | ╀                       | <del> </del>            | -  | 51       | +        | +        | -+         | +        | -+       | $\dashv$ | $\dashv$ | -+       | +        | $\dashv$ | H    |               | 01          | ł |
| $\Box$   | W        | 1               | 7        | _            |          |          | _        | ├-  | <del> </del>   | ╀                       | <b>├</b>                | <del> </del>                                 |          | +        | +        | -          | +        | +        | $\dashv$ | $\dashv$ | -+       | +        | $\dashv$ | -    | _             |             | ł |
|          | Φ        | 11              | =        | _            | _        | _        | _        | 1   | 1              | 1_                      | ┡                       | L.   | 52       | +        | 4        | -          |          | -        | -        | -        | -        | -+       | $\dashv$ | F    | _             | 02          | ł |
|          | T        | 11-             | -        | . 1          |          |          | L        | L   |                | _                       | L                       |  | 53       | _        | _        | 4          | _        | _        |          | _        |          | _        | 4        | Ļ    |               | 03          | ļ |
|          | 1        | $\Pi$           | ⊻        |              |          |          |          | L   |                | 1                       | L                       | <u> </u>                                     | 54       | 4        | -        |            | _        | 4        | _        | 4        | _        | _        | 4        | ļ.,  |               | 04          | ļ |
| П        | 4        | $T\Gamma$       | П        | 1            |          |          |          |     |                | 1                       |                         |  | 55       | _        | _        | $\perp$    |          | $\perp$  | _        | _        |          | _        |          | L    | _             | 06          | l |
| П        | 7        | T               | П        |              |          |          |          | Γ   | Т              | 1                       |                         |  | 56       | ┙        |          |            | _        | _        | _        | $\perp$  |          | $\dashv$ |          | L    |               | 06          | ļ |
| m        | 1        | 11              | П        | _            | $\neg$   |          |          | T   | Т              | Т                       | Т                       |  | 57       |          | T        |            | 1        |          |          |          |          |          |          | L    |               | 07          |   |
| 1-1      | •        | Ħ               | 17       | 기            | $\neg$   |          | -        | T   | 1              | $\top$                  |                         |  | 58       | $\neg$   | П        |            |          |          | $\neg$   |          |          |          |          |      | 1             | 08          | 1 |
| $\vdash$ | 9        | Ħ               | H        |              | 一        |          | Г        | T   | $\top$         | T                       |                         |  | 59       | $\neg$   | $\neg$   |            |          |          | コ        | П        | П        |          |          |      | h             | 09          | 1 |
| $\vdash$ | 9<br>10  | ╁┼              | Н        | -            | ᅥ        | _        | H        | t   | +              | ╈                       | t                       |  | 60       | _        | 7        | _          | ヿ        | $\neg$   | $\neg$   | _        | $\neg$   |          | $\neg$   | Γ    | 7             | 10          | 1 |
| H        | Ť        | ╁               | Н        | -            | _        | -        | H        | t   | t              | ╁                       | +                       | 1  -   | 61       | 7        | -1       | 1          | _        | ┪        |          |          |          | $\neg$   | ┑        | F    | 1             | 11          | 1 |
| $\vdash$ | 12       | 1               | H        | $\dashv$     | -        |          | ⊢        | ╁   | +              | +                       | 1-                      |  | 62       | +        | 1        | -          | -        | -        | $\neg$   | -        | +        | 7        | ┨        | ı    | _             | 12          | 1 |
| $\vdash$ | 13       | 1-+             | $\vdash$ | -            | $\dashv$ |          | $\vdash$ | +-  | +              | +-                      | +                       | -  | 63       | +        | +        | -+         | -        | $\dashv$ | $\dashv$ | +        | -†       | +        | $\dashv$ | ŀ    | _             | 13          | i |
| $\vdash$ | 14       | 1               | Н        |              | $\dashv$ | _        | -        | ╀   | +-             | +-                      | ╁                       | -  | 64       | +        | -        | -+         | +        | -        | -        |          | -        | -†       | $\dashv$ | ŀ    | _             | 14          | 1 |
| $\vdash$ | 1        | 11              | Н        | $\dashv$     | Ш        | _        | 1        | +   | ╁              | +                       | ╁                       | ┤├─  | 65       | +        | ┪        | +          |          | $\dashv$ | $\dashv$ | $\dashv$ | +        | $\dashv$ | ᅥ        | }    | _             | 15          | 1 |
| $\vdash$ | 15       | ₩               | Ц        | _            |          |          | ┡        | +-  | +              | ╀                       | ╀                       | <b>I</b> ⊢                                   |          | $\dashv$ | +        | $\dashv$   | $\dashv$ | $\dashv$ |          | -        |          | -+       |          | H    |               | 16          |   |
|          | 15       | 11              | Ц        | _            |          |          | <u> </u> | ╀   | 4-             | ╀                       | 4                       | l '  | 66       | -        | -        |            |          | -        |          |          |          | $\dashv$ | $\dashv$ | -    |               | 17          | 4 |
|          | 17       | Ц               | Ц        | _            |          |          | L        | ╀   | ┸              | 4                       | 1                       | <b>↓</b>                                     | 67       | -        |          |            | -        | -        |          | -1       |          | -        |          | -    | _             | 18          | 4 |
|          | 18       | Ш               | Ш        |              |          |          |          |     | ┸              | L                       | 上                       | 1 1  | 68       | 1        | 4        | _4         | _        |          | _        |          | -1       | -        | 4        | ŀ    | -             | <del></del> |   |
| П        | 9        | J               | П        |              |          |          | l _      |     | L.             |                         | 1                       | ▎└   | 69       | _        |          |            |          | _        |          | _        | _        | _        | ᅬ        | L    |               | 19          | į |
| П        | 20       | ノ               | П        |              |          |          | Г        | Ţ   | Т              | Т                       | T                       |  | 70       |          |          | - 1        | - 1      | ļ        |          | Į        | - 1      | .        | ļ        |      | þ             | 20          |   |
| +1       | 21       | 5               | J        | マ            | V        | 7        | ₹        | 1   | ⇗              | +                       | 1                       | 1  | 71       |          | $\neg$   | _          | $\neg$   |          |          |          |          | П        |          | Γ    | [·            | 121         | _ |
|          | 22       | -               | Ч        | Ť            | Ť        | Ť        | 1        | +   | 1              | +                       | $\top$                  | 1  | 72       |          |          | 7          |          |          |          |          |          |          |          |      | 1             | 22          |   |
| $\vdash$ | 23       | -               | $\dashv$ | +            | H        | H        | ╁        | Н   | +              | +                       | t                       | 1  | 73       | 1        |          | 一          | _        |          |          |          |          |          |          | ı    | 1             | 23          |   |
| $\vdash$ | 24       | $\dashv$        | _        | +            | Н        | Н        | Н        | Н   | +              | ╁                       | ╁                       | 1  -   | 74       | -        | -1       | ╛          | $\neg$   |          |          | $\neg$   | _        |          | $\neg$   | ı    | 1             | 24          | 1 |
| $\vdash$ |          | $\dashv$        |          | +            | Н        | Н        | Н        | Н   | H              | +                       | ╁╌                      | ┧┟┈  | 75       | +        |          | $\dashv$   | -        |          |          |          | $\dashv$ |          | -        | ŀ    | -             | 25          | _ |
| $\vdash$ | 25       | -               | _        | -            | Ц,       | Щ        | ┰        | 4   | 屮              | ╀                       | +-                      | ┨╶├╌   | 76       | $\dashv$ | -        |            | -        |          |          |          | $\dashv$ |          |          | ŀ    | -             | 26          | - |
|          | 26       | $\dashv$        |          | _            | V        | $\leq$   | ۲,       | 4   | 4              |                         | ╄                       | ┨ ├─   | 77       | -        |          | $\dashv$   | -        | -        | -        | $\vdash$ |          | -        |          | ŀ    | -             | 27          |   |
|          | 27       |                 | _        | 4            |          |          | Ļ        | 1,  | 1              | 4                       | 4                       | ⇃┝   |          | $\dashv$ | -1       | -          | -        |          |          |          | -        | -+       |          | ŀ    | _             | 28          | - |
|          | 28       | •               |          | Ц            | Y        | $\vee$   | 1        | 4   | ×              | $\perp$                 | 1                       | ↓  | 78       |          |          | $\dashv$   | $\dashv$ |          | ш        | _        |          | -        | $\dashv$ | - 1  | _             | 29          |   |
| $\sqcup$ | 29       |                 |          |              | L        | L        | L        | L   | ı              | $\perp$                 | _                       | <b>↓                                    </b> | 79       |          | _        |            |          | _        |          |          | _        | -        | ᅴ        | - 1  | .1.           | 30          | - |
|          | 30       |                 |          | $\perp$      | L        | LL       | Li       | Ш   | Ш              | L                       | L                       | 1 L  | 80       | _        | $\perp$  |            | Ш        |          | Щ.       | ш        |          | _        | _        | - 1  |               |             | _ |
|          | 31       |                 |          | П            | П        | П        |          |     |                |                         | 1_                      | JL   | 81       |          |          |            |          |          | L_       |          |          | _        |          | Ļ    |               | 131         | _ |
|          | 32       | T               |          | П            | I        | П        |          | II. |                | ıΓ                      | $oldsymbol{\mathbb{I}}$ | ] [  | 82       |          |          |            |          | _        | L        |          |          | _        |          | ļ    |               | 32          | _ |
|          | 33       |                 | _        | IT           | Π        | V        | 1        | X   | 7              | T                       | $\top$                  | 1 [  | 83       |          |          |            |          |          | L        |          |          |          |          |      |               | 33          | _ |
|          | 3        | $\vdash$        | _        | 1            | Ħ        | 0        | Τ        | +   | 十              | T                       | 1                       | 1  | 84       | $\Box$   |          |            |          |          |          |          |          |          |          |      |               | 134         |   |
|          | 35       | $\vdash$        |          | IT           | Ħ        | Ž        | 1.       | ₹.  | J              | T                       | T                       | 1  | 85       |          |          | П          |          |          |          |          |          |          |          |      |               | 135         |   |
|          | 36       | $\vdash$        |          | 1            | ∀        | Ė        | オ、       |     | ĭ              | $\top$                  | +                       | 1  | 86       | $\dashv$ |          | П          |          |          | Γ        |          |          |          |          |      |               | 136         |   |
| -        | 37       | ┝┤              | :        | ŕ            | F        | ᡟᢩ       | +        | _   | <del>/</del> + | +                       | +                       | 1  -   | 87       | 1        | _        | Н          | П        |          | Г        | 1        |          | T        | П        |      | Ŧ             | 137         | _ |
|          | 38       | $\vdash \vdash$ | <u> </u> | ⊢            | ₩.       | +-       | ╁        | +   |                | +                       | +                       | 1  -   | 88       | $\dashv$ | _        | Н          |          | Н        | t-       | Г        | П        | П        | T        |      | 7             | 38          | _ |
| 1 :      |          | ⊦-∤             | 2,       | $\vdash$     | 1        | -        | +        | ╁   | F              | +                       | +                       | ┨ ├  | 89       | $\vdash$ |          | $\vdash$   | $\vdash$ | $\vdash$ | Н        | 1        | Н        | Н        | $\dashv$ | Ì    | 7             | 39          | - |
| E        | 39       |                 |          | $\vdash$     | +-       | -        | +        |     | +              | +                       |                         | ┨ ├  | 90       | $\vdash$ | _        |            | -        | $\vdash$ | $\vdash$ | -        | -        | Н        | H        |      | $\rightarrow$ | 40          | - |
|          | 40       | Ш               | •        | _            | A        | $\vdash$ | 1        | 4   | χ              | 4                       | -                       | <b>┦</b> ├                                   | +        | $\vdash$ |          | ⊢          | -        | $\vdash$ | -        | -        | $\vdash$ | -        | Н        |      |               | 141         | - |
| L        | 41       | $\Box$          |          | L            | 6        | L        | 1        | 1   | A              | $\perp$                 |                         | ↓  | 91       | Ш        |          | <u> </u>   | ļ        | <u> </u> | <u> </u> | -        | -        | H        | _        |      |               | 142         | _ |
| Г        | 42       | П               |          |              | Γ        | ſ        | Ι        |     | Щ              | $oldsymbol{\mathbb{L}}$ |                         | 」 L  | 92       | Ш        |          | <b> </b> _ | _        | _        | 1        | ╙        | <u> </u> | _        | $\vdash$ |      | 1             |             |   |
| $\vdash$ | 43       |                 |          |              | Γ        | Γ        | Ι        | Ţ   | $_{ m I}$      | J                       | ╧                       | JL   | 93       | Ш        | <u> </u> | _          | 乚        | <u>_</u> | L        | 上        | L-       | _        |          |      | -             | 143         | _ |
| $\vdash$ | 44       | ١.              |          |              | T        | Π        | T        | T   | Т              | T                       | Т                       | 7 「  | 94       |          | L        | L          | L        | L        | L        | L        | L        | L        |          |      |               | 144         | _ |
| H        | 45       | Н               | -        | H            | T        | 1        | 十        | 十   | $\top$         | +                       | 十                       | 1  | 95       |          |          |            | Π        |          |          |          |          |          |          |      | _             | 145         | _ |
|          | 46       |                 | -        | t            | t        | t        | †        | +   | 十              | $\dagger$               | 1                       | 1  | 96       |          | Г        | Γ          |          | Г        | Γ        |          |          | Ĺ        |          |      | -             | 146         | _ |
| :        | 47       | f               | ⊢        | +            | ╁        | +        | +        | +   | ╅              | +                       | +                       | 1  | 97       | Г        | Т        | 1          |          | 1        |          | Г        | Γ        | Г        |          |      |               | 147         |   |
| : 1      | _        |                 | -        | ╁            | ╁        | ╁        | +        | +   | +              | +                       | +                       | ┨ ├  | 98       |          | $\vdash$ | 1          | $\vdash$ | t        | t        | 1        | $\vdash$ |          | Г        | (    |               | 148         | _ |
| :        |          |                 |          |              |          |          |          |     |                |                         |                         |  |          |          |          |            |          |          |          |          |          |          |          |      |               | _           |   |
|          | 48       | _               | H        | <del> </del> | ╁╴       | ┿        | +        | +   | -+-            | +                       | +                       | 4 🗁  | 99       | Г        | _        | T          | 1        | 一        | 1        | 1        | Г        |          |          |      |               | 149         |   |

| Cla      | im         |          |           |          |              | Dal     | e            |          |          |            | _        |
|----------|------------|----------|-----------|----------|--------------|---------|--------------|----------|----------|------------|----------|
|          |            |          | $\exists$ |          |              |         |              |          |          | $\neg$     | $\dashv$ |
| Final    | Original   |          |           |          |              |         |              |          |          |            |          |
| _        | 101        | +        | $\dashv$  | -        |              |         | -            | $\dashv$ | ᅱ        |            | _        |
|          | 102        | 7        | ┪         | -        |              |         | Н            |          |          | -          |          |
|          | 103        | 寸        | 7         |          | _            |         |              |          |          | T          |          |
|          | 104        |          |           | _        |              |         |              | П        |          |            |          |
|          | 105        |          |           |          |              |         |              |          |          |            |          |
|          | 106        | _        |           |          |              | _       | L            |          |          |            |          |
|          | 107        | 4        | _         |          | -            |         |              |          |          |            | _        |
|          | 108        | -        | 4         |          |              | _       | -            | <u> </u> |          |            | <u> </u> |
| _        | 109<br>110 |          | $\dashv$  |          | -            | ┝       | -            | $\vdash$ | -        | _          | $\vdash$ |
| _        | 111        | -        | $\dashv$  |          | -            | -       | $\vdash$     | -        | _        | -          | ┝        |
| -        | 112        | -        | ᅥ         | <u> </u> | ┢            | -       | $\vdash$     |          | -        |            | -        |
| H        | 113        | $\dashv$ | ┪         |          | <del> </del> | -       | $\vdash$     |          | -        |            | 一        |
| _        | 114        |          |           |          |              |         | Γ            |          |          |            |          |
|          | 115        |          |           |          |              |         |              |          |          |            |          |
|          | 116        |          |           |          |              | Ĺ       |              | L        |          |            |          |
|          | 117        | $\Box$   |           |          | L            | L       | _            | L_       | <u>_</u> | _          | _        |
| <u> </u> | 118        |          |           | L        | _            | ļ       | <u> </u>     | <u> </u> | _        | _          | L        |
| <u> </u> | 119        | _        | _         | _        |              | -       | ┝            | -        | -        | -          | -        |
|          | 120        |          |           | _        | L            | _       | ┡            | ┡-       | _        | ┞          | _        |
|          | 121        | 4        | _         | -        | -            | ├-      | $\vdash$     | ⊢        | -        | -          | -        |
| -        | 122<br>123 | Н        |           |          | ╁╴           | ├       | $\vdash$     | ├        |          | -          | ┝        |
|          | 124        | $\vdash$ | _         | H        | -            | ╁       | ┢            | ┢╌       | H        | ┢          | -        |
| H        | 125        | H        | _         | -        | ┢            | 1-      | $\vdash$     | 1        |          | Г          |          |
|          | 126        |          | Γ         | -        | T            |         |              |          |          | i_         | Ĺ        |
| Г        | 127        | _        |           |          |              |         |              |          |          |            |          |
|          | 128        |          |           |          |              | L       |              | ١_       |          | <u> </u> _ | ↓_       |
| _        | 129        |          | L         | L        | L            | L       | <u> </u>     | ļ_       | _        | L          | ļ        |
| L        | 130        | L        | _         | L        | -            | ļ_      | ↓_           |          | -        | -          | -        |
| ļ.       | 131        |          | 느         | _        | ╄            | -       | ╀            | ₩        | -        | ╢          | -        |
| H        | 132        | -        | -         | ┞        | ╀            | ╁╌      | ╁            | ╀╌       | ┝        | ╁          | ╁╴       |
| -        | 133        | -        | -         | Ͱ        | ╁            | -       | ╁            | ┼-       | ╁╴       | 1-         | 十        |
| -        | 135        | _        |           | ╁╴       | +-           | ╁       | $\vdash$     | T        | T        | Τ          | 1        |
| $\vdash$ | 136        | _        | -         | t        | 十            | ✝       | 1            | 1        |          | Γ          |          |
|          | 137        | -        |           |          | T            |         | L            |          | L        | L          | L        |
| Г        | 138        |          |           |          |              | L       | L            | L        | L        | L          | 1        |
|          | 139        |          |           | L        |              | ┺       | L            | 1-       | ↓_       | ╀          | ╀        |
| L        | 140        | -        | L         | L        | L.           | _       | <del> </del> | ↓_       | ╀        | ┡          | ╀        |
|          | 141        | 1        | L         | L        | _            | $\perp$ | $\downarrow$ | +        | -        | +          | -        |
| L        | 142        |          | <u> </u>  | L        | +-           | +-      | ╀            | ╀        | ╀        | ╀          | +        |
| $\vdash$ | 143        | -        | Ŀ         | -        | +            | ╀       | +-           | ╀        | 1-       | ╁          | ╁        |
| L        | 144        |          | ├-        | ╀        | ╁            | +-      | ╀            | ╀        | ╁        | †-         | ╁╌       |
| $\vdash$ | 145        | _        | ╀         | ╀        | ╀            | ╁       | ╁            | 十        | t        | t          | t        |
| $\vdash$ | 146        |          | ╁╌        | +        | +-           | +       | +            | +        | T        | T          | T        |
| -        | 146        | _        | 1-        | +        | +            | +       | †            |          | I        | I          | L        |
| -        | 149        | _        | 1         | T        | 1            | T       | I            |          | I        | I          | L        |
| 1-       | 150        |          | Τ.        | T        | 7            | T       | 1            | 1        | 1        | 1          | 1        |

If more than 150 claims or 10 actions staple additional sheet here

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